

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-3 have been amended.

Claims 4-7 have been cancelled.

1. (Currently Amended) A detector for detecting a state on a detection surface, ~~characterized by~~ comprising:

a prism which includes a first surface as a detection surface;

light-emitting means for applying light to the detection surface through an interior of said prism;

light-receiving means for receiving reflected light of light applied from said light-emitting means to the detection surface; and

state detection means for detecting a state on the detection surface on the basis of the reflected light received by said light-receiving means; and

cooling means, provided on a second surface of said prism which serves as an exit surface of light to said light-receiving means, for cooling said prism,

wherein said state detection means detects moisture produced on the detection surface of said prism which is cooled by said cooling means, on the basis of the specular reflection received by said light-receiving means.

2. (Currently Amended) A detector for detecting a state on a detection surface according to claim 1, ~~characterized by~~ further comprising a mirror which reflects specular reflection of light applied from said light-emitting means to the detection surface and returns the light to the detection surface through the interior of said prism,

wherein the second surface of said prism serves as an exit surface of light to said light-receiving means and an incident surface of light from said light-emitting means, and

wherein said light-receiving means receives the specular reflection of the light from the detection surface, as the reflected light, which is returned by said mirror.

3. (Currently Amended) A detector for detecting a state on a detection surface according to claim +2, characterized by further comprising wherein:

said cooling means for cooling said prism, comprises a thermoelectric cooling element with one surface serving as a low-temperature-side surface and the other surface serving as a high-temperature-side surface,

a mirror which reflects specular reflection of light applied from said light-emitting means to the detection surface and returns the light to the detection surface through the interior of said prism,

wherein said light receiving means receives the specular reflection of the light from the detection surface, as the reflected light, which is returned by said mirror, and

said state detection means detects moisture produced on the detection surface of said prism which is cooled by said cooling means, on the basis of the specular reflection received by said light receiving means.

said thermoelectric cooling element is placed so as to make the low-temperature-side surface serve as the second surface side of said prism,

a heat dissipation member is mounted on the high-temperature-side surface of said thermoelectric cooling element, and

said light-emitting means and said light-receiving means are provided so as to extend through said thermoelectric cooling element and said heat dissipation member.

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)